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MONROE CO. PLANNING DEPT

Playa Largo (Playa Cristal)

MM 97.5 US 1 / Overseas Highway

Key Largo, Florida

TRAFFIC STUDY

prepared for:
Key Largo Hospitality Land Trust

KBP CONSULTING, INC.

June 2014
Revised February 2015

Playa Largo (Playa Cristal)

MM 97.5 US 1 / Overseas Highway

Key Largo, Florida

Traffic Study

June 2014

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Prepared for:

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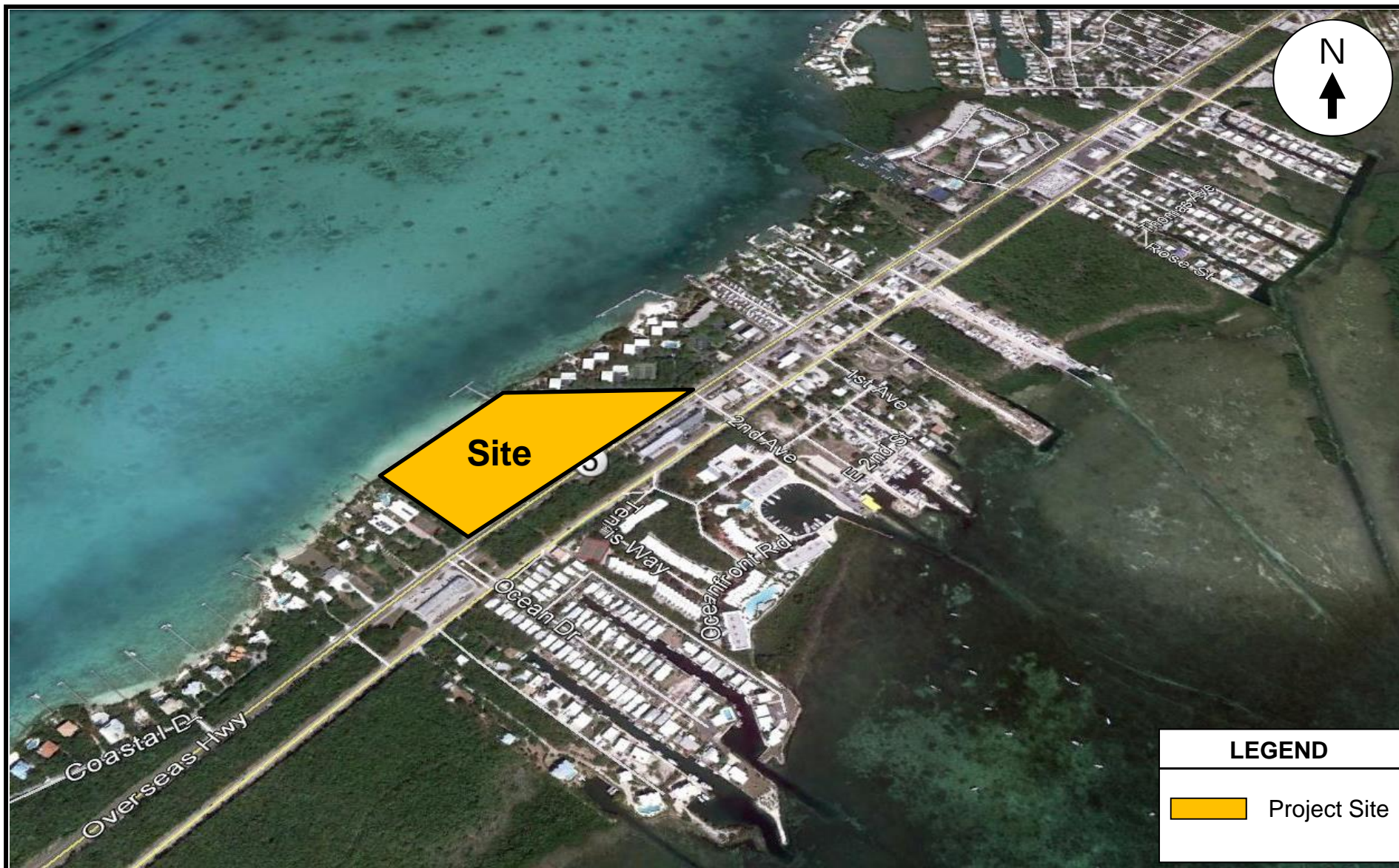
INTRODUCTION

Playa Largo (a.k.a. Playa Cristal) is a planned transient unit hotel development to be located on the bay side of US 1 / Overseas Highway between mile markers 97 and 98 in Key Largo, Monroe County, Florida. More specifically, the subject site is located on the north side of US 1 / Overseas Highway between the T-intersections of US 1 / Second Avenue and US 1 / Ocean Drive. The location of this project site is illustrated in Figure 1 on the following page.

KBP Consulting, Inc. has been retained by the Key Largo Hospitality Land Trust to prepare a traffic study in connection with this proposed development. This study addresses the vehicular traffic volumes expected to be generated by the proposed development and the projected turning movement volumes at the project access driveway on US 1 / Overseas Highway. This driveway will serve as the only public vehicular access point to the site.

This traffic study is divided into four (4) sections, as listed below:

1. Inventory
2. Trip Generation
3. Trip Distribution and Driveway Assignment
4. Summary & Conclusions



INVENTORY

Existing Land Use and Access

The project site is currently vacant. Vehicular access to the site is currently provided by a right-turn in / right-turn out only on the southbound lanes of US 1 / Overseas Highway.

Proposed Land Use and Access

The subject site will be redeveloped with a resort hotel and associated resort amenities. The total number of transient (hotel) dwelling units will be 177. There will also be a single family residence located on the property. Vehicular access to the site will be provided via a right-turn in / right-turn out only driveway on the southbound lanes of US 1 / Overseas Highway toward the southern end of the site. (There will be an additional emergency only driveway located toward the north end of the site.) Appendix A contains the preliminary site plan for the proposed project.

Roadway System

US 1 / Overseas Highway is located along the southeast side of the project site. In this area, US 1 / Overseas Highway is a four-lane divided (i.e. one-way pair) principal arterial roadway.

TRIP GENERATION

A trip generation analysis has been conducted for the proposed hotel development and the single family residence. The analysis was performed using the trip generation rates and equations published in the Institute of Transportation Engineer's *ITE Trip Generation Manual (9th Edition)*. The trip generation analysis was undertaken for daily, AM peak hour, and PM peak hour conditions. According to the ITE report, the most appropriate land use categories and trip generation rates for the proposed development are as follows:

Hotel – ITE Land Use #310

- Weekday: $T = 8.95 (X) - 373.16$
where T = number of trips and X = number of rooms
- AM Peak Hour: $T = 0.53 (X)$ (59% in / 41% out)
- PM Peak Hour: $T = 0.60 (X)$ (51% in / 49% out)

Single-Family Detached Housing – ITE Land Use #210

- Weekday: $T = 9.52 (X)$
where T = number of trips and X = number of dwelling units
- AM Peak Hour: $T = 0.75 (X)$ (25% in / 75% out)
- PM Peak Hour: $T = 1.00 (X)$ (63% in / 37% out)

Utilizing the above-listed trip generation rates and equations from the referenced ITE document, a trip generation analysis was undertaken for the proposed development. The results of this effort are documented in Table 1 on the following page.

Table 1 Trip Generation Summary Playa Largo - Key Largo, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
<i>Proposed</i> Hotel	177 Rooms	1,211	55	39	94	54	52	106
Single-Family Residence	1 DU	10	0	1	1	1	0	1
TOTAL		1,221	55	40	95	55	52	107

Compiled by: KBP Consulting, Inc. (January 2015).

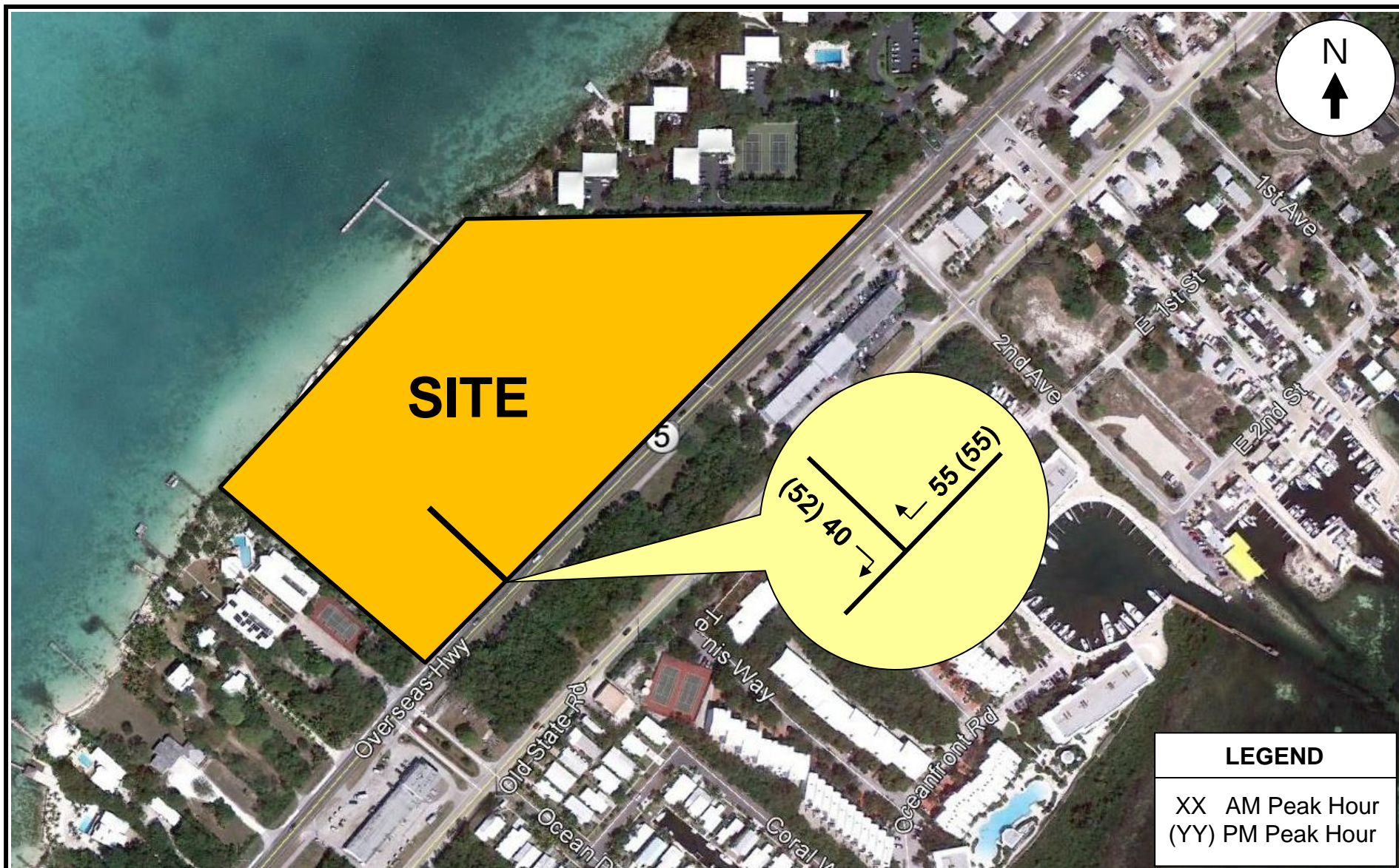
Source: Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition).

As indicated in Table 1, the proposed project is anticipated to generate 1,221 daily vehicle trips, 95 AM peak hour vehicle trips (55 inbound and 40 outbound) and 107 vehicle trips (55 inbound and 52 outbound) during the typical afternoon peak hour.

TRIP DISTRIBUTION AND DRIVEWAY ASSIGNMENT

Given the driveway location and the roadway geometry of US 1 / Overseas Highway in this area (i.e. US 1 operates as a one-way pair in this area), all project traffic will enter the site as southbound right turns and all exiting traffic will be required to turn right onto US 1 / Overseas Highway and travel in a southbound direction. Figure 2 on the following page presents the AM and PM peak hour driveway volumes for the Playa Largo project.

Based upon the projected driveway volumes anticipated during the AM and PM peak hours, a dedicated southbound right-turn lane is not required / warranted at this location on US 1 / Overseas Highway.



SUMMARY & CONCLUSIONS

Playa Largo (a.k.a. Playa Cristal) is a planned transient unit hotel development to be located on the bay side of US 1 / Overseas Highway between mile markers 97 and 98 in Key Largo, Monroe County, Florida. The subject site will be redeveloped with a resort hotel and associated resort amenities. The total number of transient (hotel) dwelling units will be 177. One (1) single-family residence will also be located on the property. Vehicular access to the site will be provided via a right-turn in / right-turn out only driveway on US 1 / Overseas Highway toward the southern end of the site.

The trip generation analysis indicates that the proposed project is anticipated to generate approximately 1,221 daily vehicle trips, 95 AM peak hour vehicle trips (55 inbound and 40 outbound) and 107 vehicle trips (55 inbound and 52 outbound) during the typical afternoon peak hour.

Based upon the projected driveway volumes anticipated during the AM and PM peak hours, a dedicated southbound right-turn lane is not required / warranted at this location on US 1 / Overseas Highway.

APPENDIX A

Site Plan

Tracts 4B and 5B, " Amended Plat of MANDALAY ", on Key Largo, according to the plat thereof as recorded in Plat Book 2 at Page 25 of the public records of

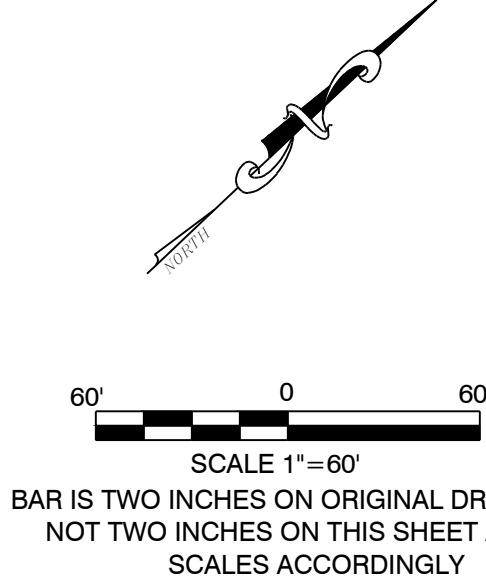
A tract of submerged land in the Bay of Florida in fronting said Tract 5B, conveyed by Trustees of the Internal Improvement Fund of the State of Florida by its Deed No 22416, more particularly

From the intersection of the dividing line between Tracts 4B and 5B, according to said A95'2047' Plat of Mandalay, with the northerly right of way line of State Road No. 5, run N49°55'40"W 64' along the boundary line of said Tract 4B to the intersection of said boundary line with the southeasterly boundary line of the Bay of Division and the Point of Beginning of the tract hereinafter described; thence southerly said mean high tide line in a northeasterly direction for 537 feet more or less, to the south line of Lot 9, as shown on the plat of "Government Lots 5 and 6 and the NW 1/4 of the NW 1/4 of Section 18, Township 1N, Range 1E, T1N R1E S4, located in the NE 1/4 of Section 18, Township 1N, Range 1E, T1N R1E S4, located in Plat Book 1, Page 59, public records, Monroe County, Louisiana; thence N88°55'40"W along the south line of Lot 9, a distance of 75 feet more or less to the most westerly corner of said Lot 9, as shown on said plat; thence N44°22'W, a distance of 145 feet, thence S40°21'W a distance of 145 feet, to the most easterly prolongation of the boundary line between Tracts 4B and 5B, according to said A95'2047' Plat of Mandalay; thence S 49°55'40"W, along said north westerly prolongation, a distance of 200 feet to the Point of Beginning.

Subject to aerial easement (OR 826, P 2489) in favor of Florida Keys Electric CoOp.

The southeasterly 3' of Tract 5B of Amended Plat of Mandalay according to the plat thereof, recorded in Plat Book 2 at Page 25 of the public records of Monroe County, Florida, said southeasterly 3' being adjacent to US Highway No. 1, and located between poles numbered 410 and 412 of the grantee herein, adjacent to said easement. This easement shall be an aerial easement only to permit grantee to encroach on the property of grantor with pole attachments affixed to grantee's poles numbered 410, 411 and 412.

- ALL LIGHTING STANDARDS WILL MEET MONROE COUNTY REQUIREMENT FOR FULL CUT OFF FIXTURES.
- CLEAR SITE TRIANGLES TO BE IN ACCORDANCE WITH FDOT 2013 STANDARDS AND SPECIFICATIONS.
- THERE IS NO PARKING LOT LANDSCAPING REQUIRED IN A RV ZONE.
- ALL LANDSCAPE DESIGN IS SHOWN FOR REFERENCE ONLY. SEE LANDSCAPE DRAWINGS FOR COORDINATION.



GENERAL INFORMATION	APPROVED SITE PLAN (2007)	REVISED SITE PLAN (APPROVED SEPT.2012)	REVISED SITE PLAN (JULY 2014)	REVISED SITE PLAN (2015)	VARIATION (2007 vs 2015)
<p>LANDUSE: GROSS ACRES SUBMERGED LANDS DWELLING UNITS PARKING REQUIRED PARKING PROVIDED TOTAL COMMERCIAL AREA:</p>	<p>(RV) RECREATION VEHICLE 11.84 2.31 154 KEYS (PLUS ONE RESIDENCE) 184 (5 HANDICAP SPACES) 147 (6 HANDICAP SPACES) 3,924 S.F.</p>	<p>(RV) RECREATION VEHICLE 11.84 2.31 154 KEYS (PLUS ONE RESIDENCE) 184 (5 HANDICAP SPACES) 161 (6 HANDICAP SPACES) 2,500 S.F.</p>	<p>(RV) RECREATION VEHICLE 11.84 2.31 162 KEYS (PLUS ONE RESIDENCE) 184 (5 HANDICAP SPACES) 169 (8 HANDICAP SPACES) 2,500 S.F.</p>	<p>(RV) RECREATION VEHICLE 11.84 2.31 177 KEYS (PLUS ONE RESIDENCE) 184 (5 HANDICAP SPACES) 177 (8 HANDICAP SPACES) 2,500 S.F.</p>	<p>NONE NONE NONE + 14.94% NONE + 20.41% NONE</p>
SETBACKS					
<p>US NO. 1 SETBACK UR / RV BOUNDARY SETBACK SR / RV BOUNDARY SETBACK SHORELINE SETBACK</p>	<p>25' 10/15' 10/15' 50'</p>	<p>25' 10/15' 10/15' 50'</p>	<p>25' 10/15' 10/15' 50'</p>	<p>25' 10/15' 10/15' 50'</p>	<p>NONE NONE NONE NONE</p>
REQUIRED LANDSCAPE BUFFER/ARDS					
<p>US NO. 1 BUFFER UR / RV BOUNDARY BUFFER SR / RV BOUNDARY BUFFER OPEN SPACE REQUIREMENT:</p>	<p>30' E' CLASS BUFFER BUFFER/ARD-D (20' WIDTH) BUFFER/ARD-E (30' WIDTH) 20%</p>	<p>30' E' CLASS BUFFER BUFFER/ARD-D (20' WIDTH) BUFFER/ARD-E (30' WIDTH) 20%</p>	<p>30' E' CLASS BUFFER BUFFER/ARD-D (20' WIDTH) BUFFER/ARD-E (30' WIDTH) 20%</p>	<p>30' E' CLASS BUFFER BUFFER/ARD-D (20' WIDTH) BUFFER/ARD-E (30' WIDTH) 20%</p>	<p>NONE NONE NONE NONE</p>
IMPERVIOUS / PERVIOUS DATA					
<p><u>UPLAND AREA</u> GROSS ACRES SUBMERGED ACRES TOTAL UPLAND AREAS</p>	<p>11.84 2.31 (IN ADDITION TO GROSS) 11.84</p>	<p>11.84 2.31 (IN ADDITION TO GROSS) 11.84</p>	<p>11.84 2.31 (IN ADDITION TO GROSS) 11.84</p>	<p>11.84 2.31 (IN ADDITION TO GROSS) 11.84</p>	<p>NONE NONE NONE</p>
<p><u>S.F. OF GROUND COVER BY STRUCTURES</u> TOTAL GROUND COVER BY STRUCTURES</p>	<p>106,757 S.F. (2.54 ACRES)</p>	<p>107,345 (2.46 ACRES)</p>	<p>119,239 S.F. (2.74 ACRES)</p>	<p>119,239 S.F. (2.74 ACRES)</p>	<p>+ 5.85%</p>
<p><u>S.F. OF GROUND COVER BY ROADS / WALKWAYS / POOL</u> TOTAL G.C. BY ROADS / WALKWAYS / POOL / POND</p>	<p>126,760 S.F. (2.91 ACRES)</p>	<p>136,349 (3.13 ACRES)</p>	<p>148,096 S.F. (3.40 ACRES)</p>	<p>148,096 S.F. (3.40 ACRES)</p>	<p>+ 0.14%</p>
<p><u>IMPERVIOUS / PERVIOUS PERCENTAGE</u> TOTAL UPLAND ACRES TOTAL IMPERVIOUS ACRES IMPERVIOUS PERCENTAGE OF SITE OPEN SPACE PERCENTAGE OF SITE</p>	<p>11.84 (515,750 S.F.) 5.45 (237,402 S.F.) 46.03% 53.97%</p>	<p>11.84 (515,750 S.F.) 5.59 (243,694 S.F.) 47.25% 52.75%</p>	<p>11.84 (515,750 S.F.) 6.13 (267,335 S.F.) 51.83% 48.17%</p>	<p>11.84 (515,750 S.F.) 6.13 (267,335 S.F.) 51.83% 48.17%</p>	<p>NONE + 12.61% + 11.19% - 11.72%</p>
OPEN SPACE CALCULATIONS					
<p><u>HAMMOCK AREA</u> GROSS ACRES IMPACTED ACRES % HAMMOCK AREA IMPACTED % OPEN SPACE:</p>	<p>1.86 (81,175 S.F.) 0.63 (27,843 S.F.) 34.30% 65.70%</p>	<p>1.86 (81,175 S.F.) .70 (30,775 S.F.) 37.91% 62.09%</p>	<p>1.86 (81,175 S.F.) .70 (30,775 S.F.) 37.91% 62.09%</p>	<p>1.86 (81,175 S.F.) .70 (30,775 S.F.) 37.91% 62.09%</p>	<p>NONE 10.53% 9.52% -5.49%</p>
<p><u>DISTURBED AREA</u> GROSS ACRES IMPACTED ACRES % DISTURBED AREA IMPACTED % OPEN SPACE:</p>	<p>9.98 (434,776 S.F.) 4.93 (214,750 S.F.) 49.39% 50.61%</p>	<p>9.98 (434,776 S.F.) 4.88 (212,919 S.F.) 48.97% 51.03%</p>	<p>9.98 (434,776 S.F.) 5.29 (230,522 S.F.) 53.02% 46.98%</p>	<p>9.98 (434,776 S.F.) 5.29 (230,522 S.F.) 53.02% 46.98%</p>	<p>NONE + 7.34% + 7.35% -7.73%</p>